

TM 79

High Toughness Resin

TM 79 is a high toughness fast-printing resin ideal for functional prototyping. Parts printed with TM 79 have low shrinkage, excellent impact strength, high dimensional accuracy and detailed resolution. It is ideal for rapid prototyping and small batch testing in applications such as wind tunnel testing, electrical enclosures, fixtures and automotive interior and exterior trim.

ISO Standard	Tested Property	Test Result
EU REACH Regulation No. 1907/2006 211	Substances of Very High Concern (SVHC)	Pass
ISO 10993-10:2010 Part 10	Irritation and Skin Sensitization	Pass
ISO 10993-5:2009 Part 5	In Vitro Cytotoxicity	Pass



Black



Tough



Accurate



Fast

TM 79 Technical Data Sheet:

Tensile Properties, ASTM D638, Type V	Metric	U.S.
Tensile Modulus, 1 mm/min	1530 MPa	221.9 ksi
Ultimate Tensile Strength, 10 mm/min	48.70 MPa	7.06 ksi
Elongation at Break, 10 mm/min	25 %	25 %
Tensile Strength at Yield, 10 mm/min	46.90 MPa	6.80 ksi
Elongation at Yield, 10 mm/min	5.6 %	5.6 %
Impact Properties	Metric	U.S.
Notched Izod (Machined), 23 °C, ASTM D256	77.2 J/m	1.44 ft-lb/in
Notched Izod (Machined), -30 °C, ASTM D256	45.2 J/m	0.84 ft-lb/in
Notched Izod (Machined), 23 °C, ISO 180/A	4.17 KJ/m ²	1.99 ft-lb/in ²
Notched Izod (Machined), -30 °C, ISO 180/A	3.33 KJ/m ²	1.59 ft-lb/in ²
Flexural Properties, ASTM D790, 1 %/min	Metric	U.S.
Flexural Strength	53.60 MPa	7.77 ksi
Flexural Modulus	1362 MPa	197.5 ksi
Thermal Properties, ASTM D648	Metric	U.S.
Heat Deflection Temperature@ 0.455 MPa/66 psi, ASTM D648	71.5 °C	160.7 °F
Heat Deflection Temperature@ 1.82 MPa/264 psi, ASTM D648	52.5 °C	126.5 °F
General Properties	Metric	
Hardness, Shore D, ASTM D2240	77D	
Density (cured resin), ASTM D792	1.19 g/cm ³	
Density (liquid resin), ASTM D4052	1.15 g/cm ³	
Viscosity, 50 °C, ASTM D2196	1000 cps	
Water Absorption, 24 hours, 23 °C, ASTM D570	0.71 %	
Water Absorption, Long Term (14 Days), ASTM D570	2.78 %	

The above TDS data is tested and verified in LuxCreo's 3D printing system. The mechanical properties of the material may vary based on print orientation, print settings and the choice of post-process technology. Please refer to LuxCreo's material "Application Guide" or consult after-sales to select suitable parameters for best performance of the material. Improper use of materials or non-compliance with material "Application Guide" may result in changes in mechanical properties and colors. LuxCreo reserves the right to change material properties and formulations without notice.